WIRELESS RAIN GAUGE

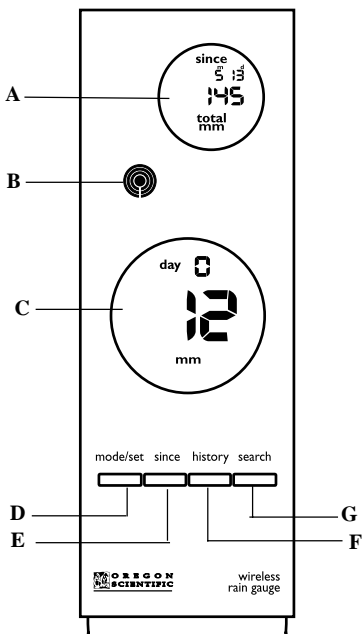### *MODEL: BHR616*

USER'S MANUAL

INTRODUCTION

Congratulations on purchasing the BHR616 Wireless Rain Guage.

Enclosed with this package is one (1) main display unit and one (1) remote rain collector.

The rain gauge is equipped with the following features and functions:

- Daily and total rainfall display

- Nine-day rainfall recall history

- Easy wireless installation

FEATURES & KEY CONFIGURATION : MAIN UNIT

since
5 13
145
total
mm

A

B

day 0
12
mm

C

mode/set   since   history   search

D   G
E   F

OREGON SCIENTIFIC   wireless rain gauge

A. Upper Window

- Displays the total rainfall, clock and date.

B. RF Signal Indicator

- Indicates the signal-receiving status of the unit

C. Lower Window

- Displays the rainfall history

D. MODE/SET BUTTON

- Switches between the clock and calendar in normal mode
- Press and hold to enter the setting mode

E. SINCE BUTTON

- Displays the start day for total rainfall
- Press and hold to clear the total and current rainfall and to reset the start date

F. HISTORY BUTTON

- Displays the rainfall history in normal mode
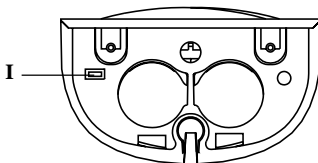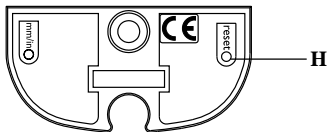- Advances digits in setting mode.

G. SEARCH BUTTON

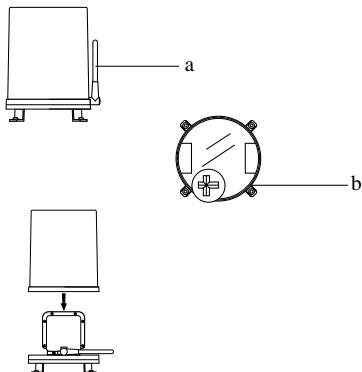- Initiates a search for the rain gauge sensor

H. RESET BUTTON
- Returns all settings to their original default values

I. [IN/MM] SWITCH
- Select rainfall measurement in inches or millimeters

RAIN COLLECTOR: FEATURES

a. Antenna

   -Transmits signal to main unit

b. Cross
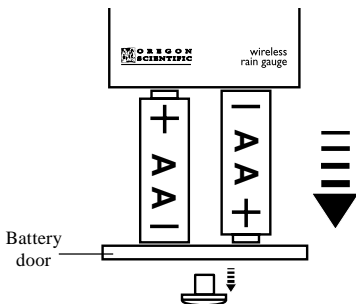   **-** To level the rain collector

BATTERY INSTALLATION: MAIN UNIT
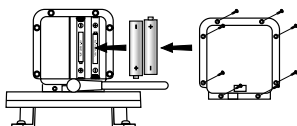
The main unit uses 2 UM-3 or AA alkaline batteries.

1. Unscrew the battery door at the bottom of the unit.

2. Remove the battery door and insert batteries in accordance with the polarities as indicated.

3. Select the display unit by the [IN/MM] switch.

4. Replace the battery door and fasten the screw.

BATTERY INSTALLATION & SETTING UP:
RAIN COLLECTOR

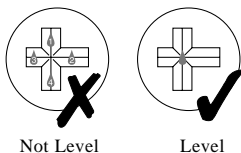The Rain Collector uses 2 UM-3 or AA alkaine batteries.

1. Remove the screws on the Rain collector as indicated in the diagram
   and insert the batteries in accordance with the polarities shown.
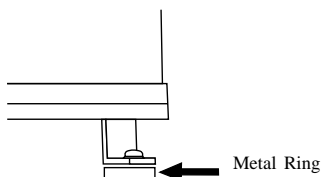

2. Remove the fiber tape from the Rain Collector assembly.

3. Position the main unit and rain collector within effective range of each
   other (up to 30 meters).

4. Place the rain collector on a level surface. Add a few drops of water; if
   the water collects at the center of the cross, the collector is level.


Not Level   Level

5. If collector is not level, rotate the metal ring(s) on the feet of the
   collector to adjust and level.

Metal Ring

6. Press the [RESET] button on the main unit to initiate operation.

7. Press [SINCE] to display the default start date. Press and hold to reset
   the start date to current date.

LOW BATTERY WARNING

There are two low-battery indicators **[▭⧄]**. The indicator for the rain collection unit is shown as " **[▭⧄]** out", and the indicator for the main unit is shown as **[▭⧄]**. Replace the batteries immediately when the respective indicator lights up.

> **Note :** Every time the batteries in the main unit are changed, it is necessary to repeat installation steps 6 through 7 prior to use.

SETTING THE CLOCK & CALENDAR

1. Press and hold the MODE/SET button for 2 seconds.

2. Choose the 12- or 24-hour display format by pressing the HISTORY button. Press the MODE/SET button to confirm.

3. Press and hold the MODE/SET button again. This time the Clock will be displayed and the Hour will be flashing.

4. Press the HISTORY button once to increase its value by one. Press the MODE/SET button to confirm its value.

5. The Minute will then be flashing. Repeat (4) to set the minute.

6. The calendar will now be displayed. Press and hold the MODE/SET button for 2 seconds. The month will be flashing. Repeat (4) again to set the current month, day and calendar display format (mm:dd or dd:mm).

7. After setting all values, the clock will be displayed.

8. To display the calendar, press the MODE/SET button twice.

9. To display the clock again, press the MODE/SET button twice.

TOTAL RAINFALL

The total rainfall is displayed on the top window of the LCD display. Upon initial activation, the rainfall amount will be displayed in millimeters. Use the [IN/MM] switch to select between inches and millimeters.

To display the start date of the record, press [SINCE] once. The date will appear on top of the LCD screen. To clear the record, hold [SINCE] for two seconds and the current date will be set as the start date. Note that this will also clear the total and current rainfall.

RAINFALL HISTORY

The rainfall history is displayed on the bottom window of the LCD display. Zero (0) indicates the record for the current day. Records for previous days are shown with a minus (-) sign; for example : (-1) is the record for the previous day and (-2) would be the record for two days preceding the current day. Press the [History] button to scan the records of each day. A total of 9 day's rainfall history can be recorded and displayed.

To clear the current day rainfall, hold [SINCE] for two seconds. Note that this will also clear the total rainfall record and start date of the record.

HOW TO READ
THE RF SIGNAL INDICATOR

The RF signal indicator shows the signal-receiving status of the main unit.
There are three possible forms:

The unit is in searching mode.	● ◎
Transmission data are securely registered.	○ ◔ ◎ ◉
No signals.	●

INTERRUPTED SIGNALS

The success of wireless data transmission may vary and is directly related
to the positioning of the remote rain collector and the environmental factors
of that location. Should there be difficulty in data transmission or should
the main unit display go blank, press [SEARCH] to initiate a search signal
between the main unit and the Rain Collector unit.

If main unit remains blank verify that:

- The remote rain collector is still in place.
- The batteries of both the main unit and rain collector are good. Replace
  if necessary.
- The transmission is within range and path is clear of obstacles and
  interference. Shorten the distance if necessary.
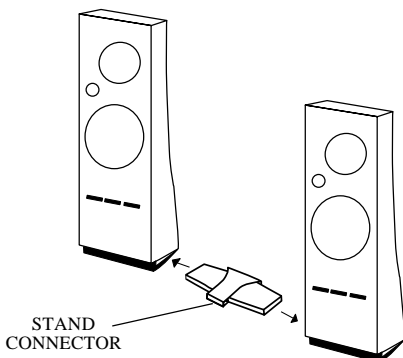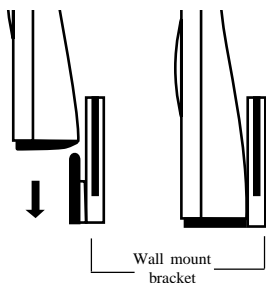
Then press [SEARCH] again.

THE RESET BUTTON

To reset the main unit, press the Reset button using a blunt stylus to hold
down the button. All main unit settings will return to their original
default values.
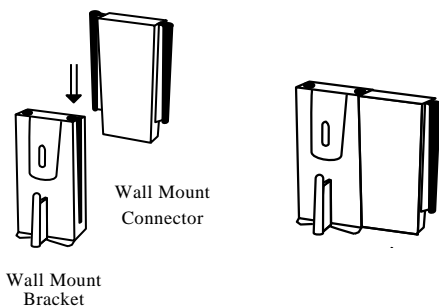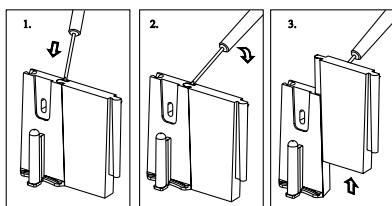
TABLE STANDING OR WALL MOUNTING

Table-Standing :
Your unit comes with stand connector for connecting it to other modular
units.

STAND
CONNECTOR

Wall-mounting:

Wall mount
bracket

Connector:

Use wall-mount connector to align with other wall-mount bracket if necessary.

Wall Mount
Connector

Wall Mount
Bracket

Un-install the brackets:

MAINTENANCE

When handled properly, this unit is engineered to give you years of satisfactory service. Here are a few product care instructions:

1. Do not immerse the unit in water. If the unit comes in contact with water, dry it immediately with a soft lint-free cloth.

2. Do not clean the unit with abrasive or corrosive materials. Abrasive cleaning agents may scratch the plastic parts and corrode the electronic circuit.

3. Do not subject the unit to excessive: force, shock, dust, temperature, or humidity. Such treatment may result in malfunction, a shorter electronic life span, damaged batteries, or distorted parts.

4. Do not tamper with the unit's internal components. Doing so will terminate the unit's warranty and may cause damage. The unit contains no user-serviceable parts.

5. Only use new batteries as specified in this instruction manual. Do not mix new and old batteries as the old batteries may leak.

6. Read this instruction manual thoroughly before operating the unit.

SPECIFICATIONS

Main unit

Proposed Operating Range	: -5°C to +50°C
	(23.0°F to 122.0°F)
Display rainfall range (total)	: 0 – 25,400 mm
	(0 - 999.99 inch)
Display rainfall range	: 0 – 2,540 mm
(history / daily)	(0 - 99.99 inch)
Rainfall resolution	: 1 mm (0.04 inch)

Remote Rain Collector

Proposed operating range	: -20° C to +60°C
	(-4° F to 140°C)

General

RF Transmission Frequency	: 433 MHz
RF Transmission Range	: maximum 30 meters
Transmission Cycle	: 50 sec

Power

Main unit	: 2 pcs UM-3 or "AA" 1.5V alkaline battery
Rain Collector unit	: 2 pcs UM-3 or "AA" 1.5V alkaline battery

Weight

Main unit	: 134g
Rain Collector unit	: 250 g

Dimensions

Main unit	: 166 x 58 x 32 mm
Rain Collector unit	: Dia 115 x 145 mm

NOTE ON COMPLIANCE

Warning: Changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

R&TTE Compliance Note

This device complies with the essential requirements of Article 3 of the R&TTE 1999/5/EC Directive, if used for its intended use and that the following standard(s) has been applied:

Electromagnetic compatibility (Article 3.1.b of the R&TTE Directive)

Applied standards   ETS 300 683 : 1997

Efficient use of the radio frequency spectrum (Article 3.2 of the R&TTE Directive)

Applied standards   EN300 220 –1 : 1997

INTENDED USE OF THE DEVICE

CAUTION

— The content of this manual is subject to change without further notice.

— Due to printing limitation, the displays shown in this manual may differ from the actual display.

— The contents of this manual may not be reproduced without the permission of the manufacturer.